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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/988,430

11/20/2001

Wun Fang Pan

MR1197-500

8578

4586

7590

05/20/2004

ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER

DONG, DALEI

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,430

Applicant(s)

PAN, WUN FANG

Examiner

Dalei Dong

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,686,786 to Lang.

Regarding to claim 2, Lang discloses in Figures 6-11, "a dome shaped envelope 46 which is made of KOPP K0503 NVIS glass. The dome-shaped envelope 46 *top portion forming a convex lens wherein having an upper surface and a lower surface, the upper surface being convex and the lower surface being concave* can also be made of several other commercially available brands of glass which satisfy the requirement that they do not transmit measurable amount of light of a wave length above approximately 700 nm, thereby being compatible with the use of night vision equipment, as discussed above. In the presently described second preferred embodiment the envelope 46 is of 0.185" diameter, has a wall that is approximately 1 mm thick, and the diameter of the internal opening is 0.100". The height of the envelope is 0.185". The opening in the dome-shaped envelope 46 is closed with an opaque bead 48 of Schott 8350 glass, into which the filament 26 *tungsten filament* bearing pins 28 *a pair of conductive wires* are

mounted, substantially as described in connection with the first preferred embodiment” (column 7, lines 24-38).

Lang also discloses in Figure 8, “the steps of the preferred method of manufacturing the second preferred embodiment 44. In accordance with this process, the filament-to-pin-to-bead subassembly 50 is made, substantially as described in connection with FIG. 3, and thereafter the subassembly 50 is sealed to the dome-shaped envelope 46” (column 7, lines 39-44).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,686,786 to Lang in view of U.S. Patent No. 4,935,665 to Murata.

Regarding to claim 1, Lang discloses in Figures 6-11, “a dome shaped envelope 46 which is made of KOPP K0503 NVIS glass. The dome-shaped envelope 46 *top portion forming a convex lens wherein having an upper surface and a lower surface, the upper surface being convex and the lower surface being concave* can also be made of several other commercially available brands of glass which satisfy the requirement that they do not transmit measurable amount of light of a wave length above approximately

700 nm, thereby being compatible with the use of night vision equipment, as discussed above. In the presently described second preferred embodiment the envelope 46 is of 0.185" diameter, has a wall that is approximately 1 mm thick, and the diameter of the internal opening is 0.100". The height of the envelope is 0.185". The opening in the dome-shaped envelope 46 is closed with an opaque bead 48 of Schott 8350 glass, into which the filament 26 *tungsten filament* bearing pins 28 *a pair of conductive wires* are mounted, substantially as described in connection with the first preferred embodiment" (column 7, lines 24-38).

Lang also discloses in Figure 8, "the steps of the preferred method of manufacturing the second preferred embodiment 44. In accordance with this process, the filament-to-pin-to-bead subassembly 50 is made, substantially as described in connection with FIG. 3, and thereafter the subassembly 50 is sealed to the dome-shaped envelope 46" (column 7, lines 39-44).

However, Lang does not disclose the top portion having upper surface and lower surface wherein the upper surface being substantially planar and the lower surface being convex. Murata teaches in Figure 1, "the lens plate 3 is made of a suitable transparent material, such as polycarbonate, acryl resin, epoxy resin, polypropylene, nylon, polychlorotrifluoroethylene, ethylenetetrafluoroethylene copolymer, polyvinylidene chloride, fluorinated ethylene-propylene copolymer, polyethylene terephthalate and like organic polymers, and glasses, and has a plurality of convex lenses 31 *convex lens having upper surface being substantially planar and the lower surface being convex*. Each

convex lens 31 in the lens plate is located at a position right above the corresponding hollow 11 or especially right above the light emitting diode 2" (column 4, lines 22-31).

Murata also teaches in Figure 1, "a portion of light emitted from the light emitting diode 2 is reflected by the surface of the pole pattern 15 on the side wall 14 of the hollow 11 toward the lens plate 3, and then is collected by the convex lenses 31 to be released forward. In the embodiment shown in FIG. 3 and FIG. 4 the electrically insulating layer 13 is composed of a material excellent in transparency and electrical insulation, such as polycarbonate, polymethylmetacrylate, nylon, polypropylene, and the like organic polymers. As a result, the surface per se of the metallic layer 12 at the side wall 14 of the hollow 11 functions as a light-reflector. Therefore in this embodiment as a material of the metallic layer 12, although an ordinary surface finish is employable, it is preferably to use a metal having a clean and glossy surface at least at the side wall 14 to realize good light-reflection. Furthermore in order to make as the light-reflecting area as wide as possible due to the metallic layer 12 at the side wall 14, it is preferable to make the width of the portion of the pole pattern 15 on the side wall 14 as narrow as possible as seen in FIG. 4. The width is, for instance, from about 0.05 to about 0.2 mm where the hollows 11 have a measurement explained hereinafter in detail in FIG. 8" (column 4, lines 32-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize the lens plate with convex lens of Murata for the top portion or the top of the envelope of Lang in order to efficiently and effectively collected the light emitted from the filament and release the light forward and thus increase the brightness of the lamp while marinating the power consumption.

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of a bulb structure.

U.S. Patent No. 4,013,915 to Dufft.

U.S. Patent No. 5,438,233 to Boland.

U.S. Patent No. 6,198,213 to Trentelman.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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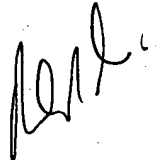
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.D.
May 14, 2004


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SUPERVISORY PATENT EXAMINER
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